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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,281	08/10/2001	Sergey Fedorovich Golovashchenko	200-1213	5317

28549 7590 03/03/2004
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EXAMINER

PETERSON, KENNETH E

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 03/03/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/927,281

Applicant(s)

GOLOVASHCHENKO ET AL.

Examiner

Kenneth E P terson

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 12 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. Applicant's appeal brief, received 26 January 04, has been entered.

The Examiner's final rejection, mailed 01 July 03, was in response to the amendment received 10 June 03. While that final rejection may be considered adequate, it is thought that some additional rejections would more thoroughly address all of Applicant's arguments. The Examiner hereby rewrites the final rejection of 01 July 03, as set forth below, in response to the amendment of 10 June 03.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Kohama, who shows an apparatus with all of the recited limitations including a steady blade (281), a clamping pad (6,7), a moving blade (51) and a support element (27) on an elastic pad (46). Kohama is silent on what radius the cutting edge of the movable blade has. However, those of ordinary skill in the art know that all metal cutting edges have a radius, simply because it is near impossible to get a perfectly sharp cutting edge.

As noted in MPEP 2131.01(C), it is acceptable to introduce a secondary reference into a 35 USC 102 rejection for the purpose of showing that something is inherent in the base references. In January of 2000, the Journal of Materials

Processing Technology accepted an article by Ridha Hambi et al. titled "*Finite element modeling of sheet metal blanking operations with experimental verification*" (hereafter "the Hambi article"). In this article, Hambi noted that having a large radius on the cutting edge, such as 0.2mm, causes burrs to form such as in figure 10b, and that new dies, with a cutting edge radius of .01mm make better cuts as seen in figure 10a. Since even new dies have a cutting edge radius, it can be seen that Kohama's dies would have a cutting edge radius, and that said new die cutting edge radius would yield a cut that is "adapted to reduce defects" as seen in Hambi's figure 10a.

4. Claims 1-3,12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Madsen, who shows an apparatus with most of the recited limitations including a steady blade (14), a clamping pad (28), a moving blade (26) and a support element (30). Madsen is silent on what radius the cutting edge of the movable blade has. However, those of ordinary skill in the art know that all metal cutting edges have a radius, simply because it is near impossible to get a perfectly sharp cutting edge.

As noted in MPEP 2131.01(C), it is acceptable to introduce a secondary reference into a 35 USC 102 rejection for the purpose of showing that something is inherent in the base references. The Hambi article noted that having a large radius on the cutting edge, such as 0.2mm, causes burrs to form such as in figure 10b, and that new dies, with a cutting edge radius of .01mm make better cuts as seen in figure 10a. Since even new dies have a cutting edge radius, it can be seen that Madsen's dies

would have a cutting edge radius, and that said new die cutting edge radius would yield a cut that is "adapted to reduce defects" as seen in Hambi's figure 10a.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohama in view of the Hambi article.

Kohama shows an apparatus with most of the recited limitations as set forth above. If, for some reason, it is interpreted that Kohama's cutting edge is not rounded, then it is noted that the Hambi article sets forth that having an edge radius of 0.01mm produces a reduced-defect cut edge, as seen in Hambi's figure 10a. It would have been obvious to one of ordinary skill in the art to have modified Kohama by making the cutting edge have a radius of 0.01mm, as suggested by Hambi, in order to obtain a reduced-defect edge.

7. Claims 1-3, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Madsen in view of the Hambi article.

Madsen shows an apparatus with most of the recited limitations as set forth above. If, for some reason, it is interpreted that Madsen's cutting edge is not rounded, then it is noted that the Hambi article sets forth that having an edge radius of 0.01mm

produces a reduced-defect cut edge, as seen in Hambi's figure 10a. It would have been obvious to one of ordinary skill in the art to have modified Madsen by making the cutting edge have a radius of 0.01mm, as suggested by Hambi, in order to obtain a reduced-defect edge.

8. Claims 1-4,12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohama in view of Bennet.

Kohama shows an apparatus with most of the recited limitations as set forth above. If, for some reason, it is interpreted that Kohama's cutting edge is not rounded, then it is noted that the Bennet teaches rounding the cutting edges as seen in figures 3-9 and discussed on lines 40-42 of column 8. Bennet states that *"the provision of a radiused or rounding on the operating edges of the die 1 is crucial to the provision of a smooth edged stamping."* It would have been obvious to one of ordinary skill in the art to have modified Kohama by making the cutting edge have a certain radius, as suggested by Bennet, in order to perform smooth edged stamping.

9. Claims 1-3,12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Madsen in view of Bennet.

Madsen shows an apparatus with most of the recited limitations as set forth above. If, for some reason, it is interpreted that Madsen's cutting edge is not rounded, then it is noted that the Bennet teaches rounding the cutting edges as seen in figures 3-9 and discussed on lines 40-42 of column 8. Bennet states that *"the provision of a*

radiused or rounding on the operating edges of the die 1 is crucial to the provision of a smooth edged stamping. It would have been obvious to one of ordinary skill in the art to have modified Madsen by making the cutting edge have a certain radius, as suggested by Bennet, in order to perform smooth edged stamping.

10. Claims 1-4,12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohama in view of Li et al.

Kohama shows an apparatus with most of the recited limitations as set forth above. If, for some reason, it is interpreted that Kohama's cutting edge is not rounded, then it is noted that Li shows that it is well known for the movable blade to be rounded to a radius (see figure 4) when cutting aluminum perpendicularly (see table 1, at 0° and 15%-25% clearance). It would have been obvious to one of ordinary skill in the art to have modified Kohama by making the cutting edge of the movable blade rounded, as taught by Li, in order to minimize the creation of slivers and burrs when cutting aluminum.

11. Claims 1-3,12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Madsen in view of Li et al.

Madsen shows an apparatus with most of the recited limitations as set forth above. If, for some reason, it is interpreted that Madsen's cutting edge is not rounded, then it is noted that Li shows that it is well known for the movable blade to be rounded to a radius (see figure 4) when cutting aluminum perpendicularly (see table 1, at 0° and

15%-25% clearance). It would have been obvious to one of ordinary skill in the art to have modified Madsen by making the cutting edge of the movable blade rounded, as taught by Li, in order to minimize the creation of slivers and burrs when cutting aluminum.

12. Applicant's arguments filed in the brief have been fully considered but they are not persuasive.

While it is true that Li teaches that an angle cut is optimal, it is noted that there are numerous examples in Li where a perpendicular cut yields acceptable results. Considering that both Madsen and Kohama would be quite difficult to adapt to have angled cuts, it is deemed that one of ordinary skill in the art (when adapting Madsen or Kohama to cut aluminum) would leave the moving blade in a perpendicular plane and round the cutting edge as set forth in Li's table 1, with a 15%-25% clearance, in order to get the best possible cut.

The amendment received 8 September 03, canceling claims 7 and 8, has been entered. The rejection under 35 USC 112 has been overcome.

Made of record but not relied on is a patent to Camp et al. showing a shear with a rounded cutting edge (line 41, column 5).

13. Applicant's amendment of 10 June 03 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.**

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Peterson whose telephone number is 703-308-2186. The examiner can normally be reached on Monday thru Thursday between 7am and 4pm.

In lieu of mailing, it is encouraged that all formal responses be faxed to 703-872-9306. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 703-308-1082. Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is 703-308-1148.

kp
February 23, 2004


Allan N. Shoap
Supervisory Patent Examiner
Group 3700


KENNETH E. PETERSON
PRIMARY EXAMINER